CQF Schedule – June 2018 Program

Date	**Time** *UK time except where indicated	**Laptop Required**	**Notes**	**Lecture Title**	**Tutor**
Module 1	**Building Blocks of Quantitative Finance**				
Tuesday 26 June	18:00-20:30 (BST)	YES		The Random Behaviour of Assets	Dr Paul Wilmott
Tuesday 03 July	18:00-20:30 (BST)			PDEs and Transition Density Functions	Dr Riaz Ahmad
Thursday 05 July	18:00-20:30 (BST)			Applied Stochastic Calculus 1	Dr Riaz Ahmad
Monday 09 July	18:00-20:30 (BST)			Applied Stochastic Calculus 2	Dr Riaz Ahmad
Wednesday 11 July	18:00-20:30 (BST)			Binomial Model	Dr Paul Wilmott
Tuesday 17 July	18:00-20:30 (BST)	YES		Stochastic Toolbox 1	Dr Riaz Ahmad
Thursday 19 July	18:00-20:30 (BST)			Stochastic Toolbox 2	Dr Riaz Ahmad
Module 2	**Quantitative Risk and Return**				
Monday 23 July	18:00-20:30 (BST)	YES		Risk Regulation and Basel III	Dr Alonso Pena
Tuesday 24 July	18:00-20:30 (BST)	YES		Value at Risk and Expected Shortfall	Dr Alonso Pena
Wednesday 01 August	18:00-20:30 (BST)			Portfolio Management	Dr Sebastien Lleo
Thursday 02 August	18:00-20:30 (BST)			Fundamentals of Optimization and Application to Portfolio Selection	Dr Sebastien Lleo

Wednesday 08 August	18:00-20:30 (BST)			Asset Returns: Key, Empirical Stylised Facts	Prof Stephen Taylor
Thursday 09 August	18:00-20:30 (BST)			Volatility Models: The ARCH Framework	Prof Stephen Taylor
Tuesday 14 August	18:00-20:30 (BST)	YES		Liquidity Asset Liability Management	Dr Alonso Penna
Thursday 16 August	18:00-20:30 (BST)			Collateral and Margins	Dr Jon Gregory
Module 3	**Equities and Currencies**				
Monday 20 August	18:00-20:30 (BST)			Black-Scholes Model	Dr Riaz Ahmad
Wednesday 22 August	18:00-20:30 (BST)			Martingale Theory - Applications to Option Pricing	Dr Sebastien Lleo
Thursday 23 August	18:00-20:30 (BST)			Martingales and PDEs: Which, When and Why	Dr Sebastien Lleo
Tuesday 28 August	18:00-20:30 (BST)	YES		Understanding Volatility	Dr Richard Diamond
Thursday 30 August	**18:00-20:30 (EDT)**	YES	***Lecture will be held live in New York***	Intro to Numerical Methods	Dr Paul Wilmott
Tuesday 04 September	18:00-20:30 (BST)			Exotic Options	Dr Riaz Ahmad
Thursday 06 September	18:00-20:30 (BST)			Further Numerical Methods	Dr Riaz Ahmad
Wednesday 12 September	18:00-20:30 (BST)			Derivatives Market Practice in the Time Before Quant Theory	Dr Espen Haug
Thursday 13 September	18:00-20:30 (BST)			Advanced Greeks	Dr Espen Haug

Wednesday 19 September	18:00-20:30 (BST)			'Advanced' Volatility Modeling in Complete Markets	Dr Paul Wilmott
Thursday 20 September	18:00-20:30 (BST)	YES		Market-Based Valuation of Equity Index Options using Python	Dr Yves Hilpisch
Module 4	**Fixed Income**				
Monday 24 September	18:00-20:30 (BST)	YES		Fixed Income Products and Analysis	Stuart Jackaman
Wednesday 26 September	18:00-20:30 (BST)			Stochastic Interest Rate Modeling	Dr Riaz Ahmad
Thursday 27 September	18:00-20:30 (BST)			Calibration and Data Analysis	Dr Paul Wilmott
Tuesday 02 October	18:00-20:30 (BST)			Probabilistic Methods for Interest Rates	Dr Sebastien Lleo
Thursday 04 October	18:00-20:30 (BST)	YES		Heath Jarrow and Morton Model	Dr Richard Diamond
Monday 08 October	18:00-20:30 (BST)			The Libor Market Model	Dr Peter Jaeckel
Wednesday 10 October	18:00-20:30 (BST)			Further Monte Carlo	Dr Peter Jaeckel
Tuesday 16 October	**18:00-20:30 (EDT)**		***Lecture will be held live in New York***	Fixed Income Market Practices	Dr Patrick Hagan
Wednesday 17 October	**18:00-20:30 (EDT)**		***Lecture will be held live in New York***	Volatility Smiles and the SABR Model	Dr Patrick Hagan
Module 5	**Credit Products and Risk**				
Thursday 25 October	18:00-20:30 (BST)	YES		Introduction to Credit Derivatives and Structural Models	Dr Alonso Pena

Friday 26 October	18:00-20:30 (BST)	YES		Credit Default Swaps	Dr Alonso Pena
Tuesday 30 October	18:00-20:30 (GMT)			Intensity Models	Dr SiYi Zhou
Wednesday 31 October	18:00-20:30 (GMT)	YES		CDO and Correlation Sensitivity and State Dependence	Dr SiYi Zhou
Tuesday 06 November	18:00-20:30 (GMT)	YES		X - Valuation Adjustment - Theory	Dr Jon Gregory
Wednesday 07 November	18:00-20:30 (GMT)	YES		X - Valuation Adjustment – Implementation	Dr Alonso Pena
Saturday 10 November	13:00-17:00 (GMT)			Final Project Workshop Part I	Dr Richard Diamond
Tuesday 13 November	18:00-20:30 (GMT)	YES		Statistical Methods in Estimating Default Probability	Dr Richard Diamond
Saturday 17 November	13:00-17:00 (GMT)			Final Project Workshop Part II	Dr Richard Diamond
Module 6	**Data Science and Machine Learning**				
Monday 19 November	18:00-20:30 (GMT)			Statistical Methods for Data Analysis	Dr Sebastien Lleo
Tuesday 20 November	18:00-20:30 (GMT)			Big Data in Finance	Dr Sebastien Lleo
Wednesday 21 November	18:00-20:30 (GMT)			Classification, Clustering and Filtering	Dr Sebastien Lleo
Wednesday 28 November	18:00-20:30 (GMT)			Machine Learning and Predictive Analytics Day 1	Miquel Noguer Alonso
Thursday 29 November	18:00-20:30 (GMT)			Machine Learning and Predictive Analytics Day 2	Miquel Noguer Alonso

Tuesday 04 December	18:00-20:30 (GMT)			From Zero to AI in 60 Minutes	Wolfram
Thursday 06 December	18:00-20:30 (GMT)			Co-Integration Using R	Dr Richard Diamond
Tuesday 11 December	18:00-20:30 (GMT)			Machine Learning Lab	Dr Richard Diamond
Advanced Electives	1. Algorithmic Trading 2. Advanced Computational Methods 3. Advanced Risk Management 4. Advanced Volatility Modeling 5. Advanced Portfolio Management 6. Counterparty Credit Risk Modeling 7. Behavioural Finance for Quants 8. Data Analytics with Python 9. Python Applications 10. Machine Learning using Python 11. R for Quant Finance 12. C++ 13. Risk Budgeting 14. Fintech				